



west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

2011 Ambient Air Monitoring Network Design

On October 17, 2006, the US Environmental Protection Agency (EPA) published final amendments to 40CFR Part 53 and 58 “Revisions to Ambient Air Monitoring Regulations; Final Rule”. This rule became effective on December 18, 2006. An excerpt of the EPA summation of the rule follows:

“The purpose of the amendments is to enhance ambient air quality monitoring to better serve current and future air quality management and research needs... In addition, the final amendments modify the general monitoring network design requirements for minimum numbers of ambient air monitors to focus on populated areas with air quality problems and to reduce significantly the requirements for criteria pollutant monitors that have measured ambient air concentrations well below the applicable National Ambient Air Quality Standards. These amendments also revise certain provisions regarding monitoring network descriptions and periodic assessments, quality assurance, and data certifications...”

Under Part 58, Subpart B-Monitoring Network, § 58.10 Annual Monitoring Network Plan and Periodic Assessments (a)(1): “Beginning July 1, 2007, the State, or where applicable local, agency shall adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, STN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and SPM monitoring stations. The plan shall include a statement of purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA. “

The purpose of this document is to provide for the public inspection of the WV Department of Environmental Protection Division of Air Quality’s (DAQ) ambient air monitoring network design for 2011. This public inspection period is open for 30 days from the date of posting on our website at www.wvdep.org/daq. Any written comments received during the 30 day public inspection period, regarding this network design and successive annual network designs, will be forwarded to USEPA Region III along with the network design document. The annual network design format will also be used to document changes to the state’s PM_{2.5} monitoring that would affect the location of a violating PM_{2.5} monitor. Except for circumstances not anticipated during this review period, such as inadequate federal or state

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funding, leasing issues, site maintenance issues, personnel resource issues or equipment failure no other *intentional* changes are expected to be made, at this time, to the PM_{2.5} monitoring network or the criteria pollutant monitoring network/stations during the next 12 months except those that are discussed within this document. All of the monitoring sites are leased and those leases are subject to periodic renewals and a standard 30 day termination clause by either party which can affect the DAQ's ability to retain a monitoring site location. Any proposed changes mentioned in this document will only be made after this agency has made a request to USEPA Region 3 and approval has been received. The proposed changes are listed herein so that the reader is aware of the possibility and can comment prior to any formal request made to USEPA.

In the pages that follow, each individual monitoring site is listed by county along with a statement as to whether it meets the requirements of Part 58, the Air Quality Subsystem (AQS) site ID number, site location information, sampling and analytical method for each parameter, the Metropolitan Statistical Area (MSA) that is represented by the site, proposed site changes and any other general comments regarding the site. Other pertinent information such as latitude/longitude, site purpose, the monitor's objective/site type and representative scale is listed for each site. At the end of this document is a discussion regarding the NCore monitoring site and general SO₂ monitoring.

Please send written comments to:

Tim J. Carroll, Assistant Director
Air Monitoring/Laboratory
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments may also be submitted electronically to: tim.j.carroll@wv.gov . All comments will be forwarded to EPA Region 3 along with this document.

For additional information and to view data publicly available from the AQS data system please visit <http://www.epa.gov/air/data/>. For a copy of the latest WVDEP-DAQ annual air monitoring report please visit www.wvdep.org/daq.

To review the EPA Air Monitoring rule and other regulatory action by EPA, please visit <http://www.epa.gov/pm/actions.html>.

Berkeley County

Site: Martinsburg Ball Field

Location: Martinsburg Ball Field, Martinsburg, Berkeley County, WV

AQS ID: 54-003-0003

MSA: Hagerstown-Martinsburg

Latitude: 39.448006

Longitude: -77.964125

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} single event Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Brooke County

Site: Mahan Lane

Location: Mahan Lane, Follansbee, Brooke County, WV

AQS ID: 54-009-0005

MSA: Steubenville-Weirton OH-WV

Latitude 40.338056

Longitude -80.597222

Comment: Site complies with Appendix A, C, D, E of Part 58. There continues to be infringement of tree growth that is outside of site leased area which is affecting the ideal monitor distance from the drip line. The DAQ is also experiencing leasing issues with this site. The DAQ continues to explore siting options and we have been working with Region 3 regarding options for a new site location.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM₁₀ Hi-Volume sampler, Size Selective Inlet, Federal Reference Method, utilizes 8"x10" quartz filters, samples once every three days. Samples analyzed by gravimetric analysis.

Proposed change: request approval from USEPA Region 3 to reduce manual PM₁₀ filter sampling frequency to once every six days.

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented
PM_{2.5} sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

Site: McKims Ridge

Location: McKims Ridge Road, Brooke County, WV
AQS ID: 54-009-0007
MSA: Steubenville-Weirton OH-WV
Latitude 40.390110
Longitude -80.585727

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

Site: Marland Heights

Location: Marland Heights, Weirton, Brooke County, WV
AQS ID: 54-009-0011
MSA: Steubenville-Weirton, OH-WV
Latitude 40.394500
Longitude -80.612034

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM₁₀ monitor.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

PM_{2.5} sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. A collocated PM_{2.5} monitor samples every 12th day. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Note: This entire site will be temporarily taken off-line starting 5/12/2011 due to repair and maintenance on the adjacent municipal water tower. It is anticipated that the site will not be available to collect air quality data for approximately four months.

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented

Carbon Monoxide – IR Gas Filter Correlation continuous CO analyzer

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented

Cabell County

Site: Huntington

Location: Marshall University, Henderson Center, Huntington, Cabell County, WV

AQS ID: 54-011-0006

MSA: Huntington-Ashland

Latitude 38.424510

Longitude -82.425323

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} single event Lo-Volume sampler, Federal Reference Method, samples once every three days. A collocated PM_{2.5} monitor samples every 12th day. Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Lead (Pb)

On December 14 2010 USEPA again revised the lead NAAQS and lowered the emission threshold that state monitoring agencies must use to determine if an air quality monitor should be placed near an industrial facility that emits lead. The new emission threshold

for sources is 0.5 tons per year (tpy), reduced from the previous threshold of 1.0 tpy. Any new monitors located near an emissions source must be operational by December 27, 2011. WV identified one lead emission source that requires lead monitoring as a result of the lead rule revision. A collocated TSP lead site is required to be installed at the existing Cabell County site. WV will be able to install and operate this site only if adequate federal funds are provided for equipment purchases.

Greenbrier County

Site: Sam Black Church

Location: Department of Highway Garage, Sam Black Church, Greenbrier County, WV

AQS ID: 54-025-0003

MSA: NA

Latitude 37.908439

Longitude -80.632812

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Gaseous:

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Hancock County

Site: New Manchester

Location: New Manchester Elementary School, New Manchester, Hancock County, WV

AQS ID: 54-029-0005

MSA: Steubenville-Weirton, OH-WV

Latitude 40.529060

Longitude -80.576230

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Site: New Cumberland

Location: RD#1, Carothers Road, New Cumberland, Hancock County, WV

AQS ID: 54-029-0007

MSA: Steubenville-Weirton, OH-WV

Latitude 40.460160

Longitude -80.576769

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Site: Chester

Location: Allison Elementary School, Chester, Hancock County, WV

AQS ID: 54-029-0008

MSA: Steubenville-Weirton, OH-WV

Latitude 40.615730

Longitude -80.560132

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented

Periodic special project collection of samples for TSP metals also takes place at this site.

Site: Summit Circle

Location: Summit Circle, Weirton, Hancock County, WV

AQS ID: 54-029-0009

MSA: Steubenville-Weirton, OH-WV

Latitude 40.427420

Longitude -80.592500

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM₁₀ monitor.

Representative siting scale: Neighborhood

Monitoring objective/site type: Source impact

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
Carbon Monoxide – IR Gas Filter Correlation continuous CO analyzer
Representative siting scale: Neighborhood
Monitoring objective/site type: Source impact

Site: Lawrenceville

Location: Community Park and Tyrone Road, Lawrenceville, Hancock County, WV
AQS ID: 54-029-0015
MSA: Steubenville-Weirton, OH-WV
Latitude 40.618340
Longitude -80.540799

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site also has a 10 meter meteorological tower.

Parameters monitored, sampling method, scale and purpose:

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Periodic special project collection of samples for Volatile Organic Compounds and TSP metals also take place at this site.

Site: Oak Street

Location: Oak St. and Owings St. - Between Dead Ends, Weirton, Hancock County, WV
AQS ID: 54-029-1004
MSA: Steubenville-Weirton, OH-WV
Latitude 40.421540
Longitude -80.580898

Comment: The site is comprised of two separate sampling structures. One is a deteriorating traditional air monitoring shelter that supports all the gaseous monitoring and manual PM₁₀ Hi-Vol FRM samplers. The other structure is an adjacent wooden platform that supports a continuous PM₁₀ FEM sampler. The shelter complies with Appendix A, C, D, E of Part 58. However, the platform sampler is adversely influenced by two decades of unchecked tree growth on property outside of the DAQ lease area. The DAQ has been working for several years to obtain an approved lease revision in order to install a new shelter several feet away from the existing shelter and platform. Until then it may become necessary to remove the continuous FEM monitor and operate only the PM₁₀ FRM Hi-Vol sampler to determine NAAQS compliance. Data from monitors located in and upon the shelter is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM₁₀ monitor.
Representative siting scale: Neighborhood

Monitoring objective/site type: Highest concentration

PM₁₀ Hi-Volume sampler, Size Selective Inlet, Federal Reference Method, utilizes 8"x10" quartz filters, samples once every six days. A collocated PM₁₀ monitor samples every 12th day. Samples analyzed by gravimetric analysis.

Representative siting scale: Neighborhood

Monitoring objective/site type: Highest concentration

Proposed change: request approval from EPA to eliminate the manual PM₁₀ filter sampling and utilize only PM₁₀ continuous monitoring once a new shelter is installed.

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Neighborhood

Monitoring objective/site type: Highest concentration

Carbon Monoxide – IR Gas Filter Correlation continuous CO analyzer

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Harrison County

Site: Clarksburg

Location: Washington Irving Junior High School, Clarksburg, Harrison County, WV

AQS ID: 54-033-0003

MSA: NA

Latitude 39.278056

Longitude -80.342500

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} single event Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Note: The roof is scheduled to be replaced at this site by the leaseholder during 2011. This will require that the site be temporarily removed from operation for an undetermined period of time which, dependent upon the number of missed samples, may affect data recovery rates.

Kanawha County

Site: Charleston

Location: 209 Morris Street, Charleston, Kanawha County, WV

AQS ID: 54-039-0010

MSA: Charleston, WV

Latitude 38.345620

Longitude -81.628422

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM₁₀ monitor. Data used primarily for Air Quality Index purposes.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Toxics

TSP metals, certain Volatile Organic Compounds and Carbonyls

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented

Other

USEPA RadNet Monitor

Site: Guthrie

Location: Guthrie Agricultural Center, Charleston, Kanawha County, WV

AQS ID: 54-039-0011

MSA: Charleston, WV

Latitude 38.448611
Longitude -81.683889

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is not suitable for NAAQS comparisons since it only consists of a speciation monitor and not any criteria pollutant monitors.

Parameters monitored, sampling method, scale and purpose:

PM_{2.5} Speciation

Speciation Trends Network site equipped with Met One Super SASS and URG 3000N Carbon sampler. Both sample on an every three day schedule.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Site: South Charleston

Location: South Charleston Public Library 312 4th Ave., South Charleston, Kanawha County, WV

AQS ID: 54-039-1005

MSA: Charleston, WV

Latitude 38.368056

Longitude -81.693611

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates

PM_{2.5} sequential Low-Volume sampler, Federal Reference Method. Samples once every three days. Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

PM_{2.5} Speciation

Speciation Met One Super SASS monitor and URG 3000N Carbon sampler. Both sample on an every sixth day schedule.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Marion County

Site: Fairmont

Location: 401 Guffey Street, Fairmont, Marion County, WV

AQS ID: 54-049-0006

MSA: NA

Latitude 39.480833

Longitude -80.135278

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential event sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Marshall County

Site: Moundsville

Location: Moundsville National Guard Armory, Moundsville, Marshall County, WV

AQS ID: 54-051-1002

MSA: Wheeling, WV-OH

Latitude 39.915970

Longitude -80.734057

Comment: Site complies with Appendix A, C, D, E of Part 58. See below for a discussion regarding the PM_{2.5} speciation monitor and minor site relocation and renovation. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential sampler, Federal Reference Method. Samples once every three days. Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400ab continuous PM_{2.5} Non-FRM/FEM monitor with Filter Dynamic Measurement System (FDMS).

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

PM_{2.5} Speciation

The speciation monitor was temporarily relocated to the Ohio County site in the fall of 2009 due to limited space availability. Speciation sampling at Ohio County began September 2009. The third phase URG carbon monitor was installed at the Ohio County site also and began sampling in October of 2009. The Moundsville site has been moved slightly to maintain proper siting distance from the tree drip line. An extended site platform will also be added to accommodate the speciation SASS and URG samplers when they are returned to this site upon completion of the renovations.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Monongalia County

Site: Morgantown

Location: Morgantown Airport, Morgantown, Monongalia County, WV
AQS ID: 54-061-0003
MSA: NA
Latitude 39.649444
Longitude -79.921111

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential sampler, Federal Reference Method. Samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Toxics

TSP metals, certain Volatile Organic Compounds and Carbonyls.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

Ohio County

Site: Wheeling

Location: Warwood Water Treatment Plant, Wheeling, Ohio County, WV
AQS ID: 54-069-0010
MSA: Wheeling, WV-OH
Latitude 40.114700
Longitude -80.700890

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

Tapered Element Oscillating Micro-Balance TEOM Series 1400/1400a continuous PM₁₀ monitor. Data used only to generate an Air Quality Index for the area and is not reported to AQS. This unit was removed from service in September 2009 in order to accommodate the temporary relocation of the speciation and carbon monitors. The unit may be returned to operation at this site when the speciation equipment is moved back to the Moundsville site. The unit is also available as a replacement monitor for other PM₁₀ TEOM's.

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Toxics

TSP metals, certain Volatile Organic Compounds and Carbonyls.

Representative siting scale: Neighborhood

Monitoring objective/site type: Population oriented

PM_{2.5} Speciation

See comments under Marshall County, Moundsville. The speciation monitor and URG carbon monitor has been temporarily relocated to the Ohio County site while renovations are undertaken at the Moundsville site.

Raleigh County

Site: Beckley

Location: Maxwell Hill Elementary School, Beckley, Raleigh County, WV

AQS ID: 54-081-0002

MSA: NA

Latitude 37.807940

Longitude -81.197461

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} single event sampler, Federal Reference Method, samples once every three days.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Proposed change: The DAQ may opt to present PM_{2.5} data and analysis to EPA in order to request a reduction in sampling frequency at this site to once every sixth day.

Wood County

Site: Vienna

Location: Neale Elementary School, Vienna, Wood County, WV

AQS ID: 54-107-102

MSA: Parkersburg-Marietta, WV-OH

Latitude 39.323660

Longitude -81.552196

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. The DAQ intends to renovate this site in 2011 in a manner that should minimize monitored air quality data loss.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential sampler, Federal Reference Method. Samples once every third day.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Measurement Scale: Urban

Purpose: Population Exposure

NCore Multi-Pollutant Monitoring

The DAQ has selected the WV Department of Agriculture Guthrie Complex as the area for placement of the NCore site. The DAQ has identified an area adjacent to the Department's Buildings and Grounds office as the site specific location. This area is owned by another government agency and the DAQ is working with all involved entities to gain permission to pursue a lease agreement. Should a lease be secured then no other activities can be performed on site development until a stable and consistent funding source is identified for site development and capital expenditures. Sustainable funding and other resources will need to be identified to support initial and long term NCore operational costs and resource demands. For more information please visit: <http://www.epa.gov/ttn/amtic/ncore/index.html>.

Sulfur Dioxide (SO₂)

On June 2, 2010, EPA strengthened the NAAQS for SO₂ by establishing a new 1-hour standard at a level of 75 parts per billion (ppb). As a result, all but two SO₂ monitoring sites in the state fail to meet the tighter short-term SO₂ NAAQS based on the 2008-2010 data. Historically, WV

had not monitored any violations of the previous annual SO₂ standard and the only monitored 24 hour SO₂ violations were recorded in the early 1990's in the industrialized upper Northern Panhandle area of WV. That area was designated as non-attainment for SO₂ and was required to submit a modeled attainment demonstration and maintenance plan and was subsequently re-designated to attainment in January 2005 by USEPA. Since all SO₂ sites were well within compliance with both the annual and 24 hour standard, the DAQ has used its limited funding opportunities to replace monitoring and support equipment that had taken on greater importance such as ozone and data loggers. The state continues to operate 30 year old SO₂ monitors at most of its sites. A few Northern Panhandle sites are equipped with SO₂ monitors that are approximately 15 years old. However, with the new more restrictive one hour standard, SO₂ monitoring has become an important monitoring issue. Unfortunately, because of the age of the SO₂ monitors, instrument failure rates are increasing and replacement parts have become difficult to find. No specific funding source has been identified for replacement of these monitors. Therefore, as SO₂ instruments fail beyond repair, it may become necessary to work with USEPA Region 3 to rank the importance of the SO₂ monitoring sites, and terminate SO₂ monitoring at lower value sites, as needed, so that remaining instrumentation and parts can be used to continue to support monitoring at middle to high value SO₂ sites.